

FY 2013

MICHIGAN PERFORMANCE PLAN

Over the past five years, based on a review of crash data trends Michigan has experienced improvements in several performance categories. While we can celebrate these successes for the moment, the fact that people continue to die and sustain serious injuries on Michigan's roads is unacceptable. This challenge continues to call Michigan's traffic safety partners into action to implement cutting edge countermeasures for traffic enforcement, occupant protection, impaired driving, and motorcycle safety to name a few.

The goal of reducing, and eventually eliminating, deaths and injuries on Michigan's roads drives the annual planning process culminating in the creation of the annual Highway Safety Plan (HSP). The information that follows provides the road map for saving lives and reducing injuries. It contains detail on the largest traffic crash problems, identifies the most effective countermeasures to address them, and reports on the partners selected to implement the countermeasures.

PROCESS DESCRIPTION

PROGRAM PURPOSE: REDUCE FATALITIES, INJURIES, AND CRASHES

A vast body of traffic crash data and research combined with the experience of traffic safety professionals from a variety of disciplines can demonstrate the effectiveness of some countermeasures, programs, and strategies, at times in the face of what "everyone knows." The key to continued progress is to maintain a focus on what will save lives and prevent injuries rather than what is popular or easy. Scarce resources call for strategies to be implemented where they will be most effective, with attention to geographical circumstances, and monitored for impact. Success is measured against goals and benchmarks for crash, injury, and fatality reduction.

The Office of Highway Safety Planning (OHSP) cannot pursue these programs without the enthusiastic participation of partners at the national, state, and local levels. This cooperative approach helps Michigan coordinate efforts in enforcement, engineering, education, and emergency medical services into comprehensive traffic safety programs that save lives.

Pre-planning Steps

Implementation of one year's HSP occurs in conjunction with planning for the next. Planning begins with an After Action Review of the previous year, identifying successful areas, those in need of improvement, and those changes that will yield greater success. It also involves brainstorming among staff members on what new strategies might show promise in the new year, along with a review of proven countermeasures known to work effectively. OHSP then makes any necessary revisions to the planning process and calendar (Exhibit 1). This pre-planning ensures that OHSP's program development remains dynamic and responsive to changes in the traffic safety environment.




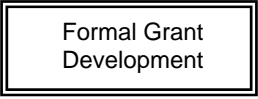
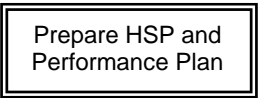
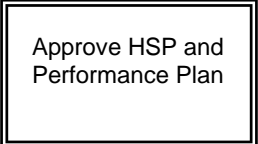
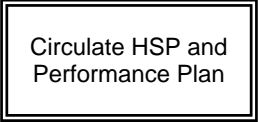


Each step of the planning process is identified in this document:

1. Problem Identification
2. Goal Determination and Analysis
3. Traffic Safety Partner Input
4. Budget Development
5. Project Selection
6. Performance Measures

Plan Organization

The performance plan follows the steps of OHSP's planning process. Crash data analysis, research, and consultation with program partners and stakeholders continue throughout each step. Program and financial staff meet biweekly at HSP and Program Development Meetings, and exchange information about program activities. Grant and revision activity is monitored to ensure programs remain on-track for successful completion. OHSP staff members incorporate emerging information into program development and implementation whenever possible and continue to look to the future for new emerging ideas and opportunities.

EXHIBIT 1 – HSP Planning Outline

FY 2013 HSP PLANNING CALENDAR		
ACTION	DATES	DETAILS
 HSP Committee Planning Session	NOVEMBER DECEMBER	<ul style="list-style-type: none"> ❖ Review past year's activity ❖ Review current year's activity ❖ Review crash data ❖ Review state and national priorities ❖ Update problem identification ❖ Quantify goals
 Program Partner Meetings	JANUARY FEBRUARY	<ul style="list-style-type: none"> ❖ Meet with program partners, obtain input ❖ Review planning session output ❖ Review data specific to the program ❖ Review quantitative goals ❖ Outline grant opportunities ❖ Identify long-term strategies (>3 years)
 Create Grant Development Plans	MARCH APRIL	<ul style="list-style-type: none"> ❖ Consult with current and prospective grantees ❖ Program area presentations ❖ Create draft Grant Development Plans ❖ Establish draft budget ❖ HSP management team reviews programs and budgets
 Formal Grant Development	MAY JUNE	<ul style="list-style-type: none"> ❖ GDPs finalized ❖ HSP budget finalized ❖ Notify grantees of grant timelines ❖ Send grantees grant templates
 Prepare HSP and Performance Plan	JUNE	<ul style="list-style-type: none"> ❖ Monitor grant development process ❖ Create draft HSP ❖ Create draft performance plan
 Approve HSP and Performance Plan	JULY AUGUST	<ul style="list-style-type: none"> ❖ Administrative review of performance plan ❖ Administrative review of HSP ❖ Approve FY 2013 performance plan and HSP ❖ Create in-house grants ❖ Begin grant entry in e-grants
 Circulate HSP and Performance Plan	AUGUST	<ul style="list-style-type: none"> ❖ Print and distribute performance plan and HSP to NHTSA, FHWA ❖ Post to web site
 Grant Approval and Implementation	SEPTEMBER OCTOBER	<ul style="list-style-type: none"> ❖ Approve and start implementation of FY 2013 grants. ❖ Conduct grant orientation meetings
 Annual Evaluation Report	NOVEMBER	<ul style="list-style-type: none"> ❖ Annual evaluation report prepared for FY 2012 HSP

1. PROBLEM IDENTIFICATION

The annual highway safety planning process begins in November with comprehensive crash data analysis. OHSP cannot approach the programming process and address traffic safety problems unless there is a full understanding of the crash data and what problems exist. OHSP looks at many variables such as the location and time of the crash, driver and environmental elements, and various mitigating factors in order to determine emerging and current issues occurring on the roads in Michigan.

An initial review of the data highlights those factors that contribute to at least ten percent of fatalities and incapacitating injuries. These are key variables that cannot be ignored and all receive goals in the next section. Additional factors may be considered such as elevated severe but non-life-threatening injuries, increasing trends that threaten to increase fatalities and incapacitating injuries, or “low-hanging fruit” for which strong countermeasures exist and which may have relatively large room for improvement.

Data analysis continues year-round, with intensified efforts early in the HSP and Grant Development Plan process. The timeliness, accuracy, and accessibility of Michigan traffic crash data allows the latest information to be incorporated into program development and implementation, going beyond a simple crash count to explore the factors involved. Examples include which days of the year have the most alcohol-involved crashes, how driver age affects fatal crash rates, which areas of a given county have the most nighttime crashes, or how demographics differ between fatal and injury pedestrian crashes in urban areas.

Authorized agencies can access the crash database directly through a variety of interfaces, including web sites and query tools. For the general public, the University of Michigan Transportation Research Institute (UMTRI) Transportation Data Center hosts the OHSP-sponsored Michigan Traffic Crash Facts. The Michigan Traffic Crash Facts (MTCF) Web site includes more than 100 tables that address the most common crash data needs, with an archive dating back to 1992. The Web site (<http://www.michigantrafficcrashfacts.org>) also includes fact sheets for state and county data, a unique query tool allowing users to build their own data queries, mapping tools, charts, tables, and GIS capability. MTCF users have access to all the crash data and all the forms, minus personal identifiers, that are submitted to the Michigan State Police Criminal Justice Information Center (CJIC) Crash Section by law enforcement officials. MTCF uses the crash data file from the official end of year statistics, creating a consistent set of numbers. The OHSP problem identification process is based on previous years' statistics and trend data reported from the previous five years.

2. GOAL DETERMINATION AND ANALYSIS

Goals are statements of program intent or purpose, consistent with the mission of the organization. The 2013 performance plan introduces the new goals for 2013-2015 based on trend data analysis from the previous five years 2007-2011. Target areas are the top factors involved in fatal and incapacitating injury crashes, along with emerging issues. Quantitative targets are set through crash projections based on five-year crash trends using a regression predictive statistical model.

The following section begins with a summary of Michigan traffic crash statistics from 2007 through 2011 (the most current data available). OHSP's revised long-term goals through 2015 follow, along with annual benchmarks.

Crash Data Comparison (2007-2011)

	2007	2008	2009	2010	2011	% Change 07-11
Total Crashes	324,174	316,057	290,978	282,075	284,049	-12%
Fatal Crashes	987	915	806	868	834	-16%
People Injured	80,576	74,568	70,931	70,501	71,796	-11%
People Killed	1,084	980	871	937	889	-18%
Death Rate (100M VMT)	1.04	0.97	0.91	1.0	.9	-14%
Fatal Crash Rate (100M VMT)	0.95	0.91	0.84	.9	.9	-5%
VMT (Billions)	104	104.6	100.9	95.9	97.6	-6%
Registered Vehicles (Millions)	8.33	8.38	8.11	8.06	8.09	-3%
Population (Millions)	10.09	10.07	10.00	9.97	9.97	-2%

The 2011 crash numbers were down in several categories and up in other categories indicating that perhaps the general upward trend has somewhat slowed and normalized.

In each of the tables that follow, the 2012 goals reflect the performance plan that was established for 2008-2012. Goals for 2013-2015 have been established based on 2007-2011 trend data with the assistance of the University of Michigan Transportation Research Institute. The goals were established using a trend line-based estimate (based on 2007-2011 data) of 2012 counts. A specific percent reduction was applied to each crash category based on the identified trends. Including an estimate of 2012 counts in the goals allows for year-to-year variation in the data.¹

¹ University of Michigan Transportation Research Institute

EXHIBIT 2: OHSP FY 2012 Goals at a Glance	2007 actual	2011 actual	2012 goal	2013 goal	2014 goal	2015 goal
Fatalities	1,084	896	860	792	763	735
Fatalities per 100 million vehicle miles traveled	1.04	0.86	0.82	.91	.89	.87
Injuries	80,576	66,382	63,718	65,470	63,798	62,169
Fatalities and incapacitating injuries ("KAs")	8,569	7,068	6,784	5,691	5,386	5,098
KAs involving alcohol	1,711	1,451	1,393	1,041	968	900
fatalities to unrestrained vehicle occupants	252	199	191	195	194	192
observed daytime safety belt use (front seat occupants)	93.7%	97.0%	97.0%	98%	98%	98%
KAs to vehicle occupants ages 0 to 8	131	98	94	93	89	85
KAs at intersections	2,750	2,274	2,183	1,955	1,850	1,751
KAs involving lane departure	3,324	2,724	2,614	2,305	2,210	2,120
KAs on local roads	5,130	4,199	4,030	3,372	3,177	2,993
KAs involving motorcycles	991	954	954	601	585	569
KAs to pedestrians	600	512	491	508	495	481
KAs to males	4,945	4,101	3,936	3,211	3,027	2,854
KAs involving drivers ages 16 to 20	1,947	1,558	1,495	1,244	1,189	1,137
KAs involving drivers ages 21 to 24	1,244	1,023	982	853	810	769
KAs from 3pm to 6pm	1,722	1,425	1,368	1,224	1,178	1,133
KAs from midnight to 3am	881	681	654	517	478	442
KAs from noon Friday to noon Sunday	2,928	2,435	2,338	1,900	1,794	1,693
KAs from July to September	2,566	2,062	1,979	1,773	1,702	1,633

Traffic Fatalities

The single most important goal in traffic safety is to reduce, and to eventually eliminate, traffic fatalities. Whatever other factors may be considered, the final measure of success must always be the lives of people. According to UMTRI², the comprehensive cost of one traffic fatality in Michigan is over 3.7 million dollars. This does not take into account the precious life lost itself and the loved ones left behind.

In 2011, fatalities decreased to 889, seven lower than the goal of 896. The Statistical Abstract of the United States lists 1924 as the last year with fewer than 871 Michigan traffic fatalities. There were 863 in 1924, so Michigan's goal is to get below the 1924 fatality count, ever downward on the path to zero.

Traffic Fatalities					
Year	Actual		Year	Goal	Actual
2008	980		2012	860	
2009	871		2013	792	
2010	937		2014	763	
2011	889		2015	735	

Vehicle Mileage Fatality Rate

The Vehicle Miles Traveled (VMT) fatality rate adjusts the worst outcome of a crash by a common exposure variable. This is defined as how many people have died in a vehicle related crash compared to how many miles are driven on the roads by everyone. The VMT fatality rate has been a consistent measure used nationally for many years, and it provides a reliable means of tracking progress over a long period of time.

If fatalities are decreasing while miles driven are increasing, the state is getting safer faster than the simple fatality count suggests. If both are decreasing, then some of the improvement is just a factor of people driving less. If miles driven are decreasing while fatalities are increasing, then a closer examination of the data is warranted in order to determine what is actually happening.

The Michigan Department of Transportation revised the VMT calculation process for 2007, suggesting that previous years may have underestimated VMT. The final effects of said change may bear future consideration.

VMT Fatality Rate ³					
Year	Actual		Year	Goal	Actual
2008	.97		2012	.82	
2009	.91		2013	.91	
2010	1.00		2014	.89	
2011	.9		2015	.87	

² UMTRI -2011-21 "Societal Costs of Crime and Crashes in Michigan: 2011 Update (Kostyniuk, LP, Molnar, LJ, St. Louis, RM, Zanier, N and Eby, DW)

³ This number is the number of fatalities (people) per 100 million vehicle miles traveled.

Traffic Injuries

While Michigan strives to achieve zero fatalities involving traffic crashes, it also seeks to decrease the severity of traffic-related injuries.

Crash avoidance seeks to reduce crashes entirely with no crashes, fatalities, or injuries as the goal. Crash mitigation seeks to reduce the severity of crashes as it relates to injuries. Michigan classifies injuries according to the KABCO scale: K=fatal; A=incapacitating; B=non-incapacitating; C=possible; and 0=none (property damage only).

Traffic Injuries					
Year	Actual		Year	Goal	Actual
2008	74,568		2012	63,718	
2009	70,931		2013	65,470	
2010	70,051		2014	63,798	
2011	71,796		2015	62,169	

Fatalities and Incapacitating Injuries (KAs)

Fatal and incapacitating injuries are the most consistent measure of severe crashes available for traffic safety planning. Fatalities and incapacitating injuries include crashes with the greatest harm and happen in large enough numbers to perform meaningful analysis.

Fatalities and Incapacitating Injuries (KAs)					
Year	Actual		Year	Goal	Actual
2008	7,705		2012	6,784	
2009	7,382		2013	5,691	
2010	6,917		2014	5,386	
2011	6,595		2015	5,098	

Alcohol-Impaired and Drug-Impaired Driving

Impaired-driving involved crashes are disproportionately more severe than other crashes, constituting 30-40 percent of fatal crashes each year. Despite decades of education and enforcement efforts, impaired driving remains a devastating traffic safety and public health problem. Some drivers are alcohol-impaired and some drug-impaired while others are both.

KAs involving alcohol ⁴					
Year	Actual		Year	Goal	Actual
2008	1,504		2012	1,393	
2009	1,396		2013	1,041	
2010	1,326		2014	968	
2011	1,253		2015	900	

⁴ Alcohol or drug impaired involved crashes are coded from the UD-10 Michigan Crash Report as crashes where at least one person has been drinking or taking drugs; the person drinking or taking drugs could have been a driver, a passenger, a pedestrian, or a bicyclist.

KAs involving drugs					
Year	Actual		Year	Goal	Actual
2008	399		2012	342	
2009	358		2013	400	
2010	451		2014	396	
2011	404		2015	392	

Increased levels of scientific analysis of blood samples of drivers suspected to be under the influence of drugs began in 2008, so previous years' results may not provide a consistent basis for comparison. Recorded drug-involved crashes are more likely to increase due to updated training for law enforcement officers such as the Advanced Roadside Impaired Driving Enforcement (ARIDE) and Drug Recognition Expert (DRE) programs.

Safety Belt Use

Safety belts are the most effective means of reducing injury severity and preventing death in the event of a crash. Increasing use of safety belts substantially improves crash survivability.

Unrestrained fatalities follow changes in the observed safety belt use rate, but note the percentage of restrained people killed is much higher than the percentage of unrestrained people. This is partly due to the life-saving effect of belts, partly to lower risk-aversion among people who do not use safety belts, and partly to differences in observed use and actual use. In compliance with federal guidelines, Michigan observes daytime front-seat occupants in an area covering at least 85 percent of the state's population. Belt use may be lower at night, in the back seat (where it is not legally required above age 16), or in more rural counties outside the survey area. Even if observed use hits 100 percent, there will still be room for improvement.

Michigan had the highest safety belt use in the nation in 2009 at 97.9 percent. In 2012 the Office of Highway Safety Planning set a benchmark goal of 98 percent for the following three years.

Fatalities to unrestrained vehicle occupants ⁵					
Year	Actual		Year	Goal	Actual
2008	276		2012	191	
2009	228		2013	183	
2010	236		2014	178	
2011	215		2015	174	

Safety belt use ⁶					
Year	Actual		Year	Goal	Actual
2008	97.2%		2012	97.0%	
2009	97.9%		2013	98.0%	
2010	95.2%		2014	98.0%	
2011	94.5%		2015	98.0%	

⁵ Unrestrained fatalities are coded from the UD-10 Michigan Crash Report as crashes including all occupant fatalities in all motor vehicles and excludes pedestrians and bicyclists. Unknowns or unavailable are not included.

⁶ Daytime front seat observed occupants of motor vehicles as reported in Michigan Direct Observation Safety Belt Survey each year.

Child Passenger Safety

Safety belts are designed for adults. Children under eight years of age need a booster seat for the belt to fit properly and children under four years of age need a special child restraint (child safety seat). Parents sometimes do not know what the right seat is, how to install it properly, or why it is necessary. Officers may not have much more training than the parents and it is sometimes difficult to observe violations of child safety seat laws. As a result, children are often under-protected in the event of a crash.

The effects of child passenger safety show up more in crash-injury than crash-fatality data. The belt alone is often enough to prevent a death, but the proper child restraint is what keeps the crash from causing massive internal injuries, particularly to the neck, spine, and intestines.

KA injuries, passenger vehicle occupants ages 0-8 ⁷					
Year	Actual		Year	Goal	Actual
2008	119		2012	94	
2009	113		2013	93	
2010	108		2014	89	
2011	105		2015	85	

Intersection Crashes

While most drivers can keep a car going in a straight line, problems occur when cars interact with each other at intersections. The severity of intersection crashes is exacerbated by the risk of angle (T-bone) collisions during turns. About one-third of all crashes happen in or near intersections. Of this one-third in 2011, 42 percent occurred at signalized intersections, 34 percent at sign-controlled intersections, and 22 percent occurred at intersections with no control at all.

Intersection crash problems can be related to engineering, driver behavior, or exposure. Any program working to improve safety in urban areas will necessarily affect intersection crashes.

KAs at intersections ⁸					
Year	Actual		Year	Goal	Actual
2008	2,391		2012	2,183	
2009	2,449		2013	1,955	
2010	2,351		2014	1,850	
2011	2,158		2015	1,751	

⁷ Includes passenger vehicles, vans, pick-up trucks and small trucks.

⁸ Intersections are coded on the UD-10 Michigan Traffic Crash Report as 7 (within an intersection), 8 (Intersection Driveway Related or within 150 feet of nearest edge of an intersection) or 9 (intersection related-other).

Lane Departure

Most fatal crashes happen when a car leaves its lane. The driver steers into a ditch, misses a turn, crosses the center line, or otherwise puts the car into conflict with another vehicle or roadside object. "Lane departure" includes not just roadway departure, but also sideswipes and highly dangerous head-on crashes.

Lane departure is connected to drunk, drowsy, and distracted driving. Any sort of impairment makes someone more likely to drift or miss a turn. Focused and attentive driving are keys to avoiding a vehicle crash.

KAs involving lane departure ⁹					
Year	Actual		Year	Goal	Actual
2008	3,180		2012	2,614	
2009	2,922		2013	2,305	
2010	2,750		2014	2,210	
2011	2,688		2015	2,120	

City-County Roads

While most miles are driven on state roads, most serious crashes happen on local roads. City, county, and local roads, with the majority of intersections and miles of pavement, present a variety of challenges for all aspects of traffic safety.

With most serious crashes taking place on local roads, any efforts directed to prevent or mitigate crashes will affect safety on local roads, and anything targeting a high-crash location is almost certain to take place on local roads.

KAs on local roads ¹⁰					
Year	Actual		Year	Goal	Actual
2008	4,592		2012	4,030	
2009	4,396		2013	3,372	
2010	4,165		2014	3,177	
2011	3,877		2015	2,993	

Motorcycles

Motorcycles are an area of traffic safety consistently fluctuating up and down in fatalities and injuries. Motorcycle ridership is increasing at a steady rate both in Michigan and nationally. Rider information also suggests young motorcyclists are not seeking proper training and licensure, while older riders are using more powerful motorcycles on which the rider may have less experience. The largest increase in motorcycle use is among older riders, which also increases the effect of lower crash survivability: older bodies are even more likely to sustain damage and have diminished ability to recover.

⁹ Lane departure crashes are coded from the UD-10 Michigan Crash Report as crashes including all crashes involving single or multiple or parked motor vehicle that leaves its lane.

¹⁰ Local road crashes are coded from the UD-10 Michigan Crash Report as crashes including all crashes involving crashes on county roads, city streets, or unknown.

The Michigan Legislature enacted Public Act 98 of 2012 on April 13, 2012 which modified the requirements for helmet usage. Riders 21 years and older, who have more than two years of experience riding a motorcycle and have attended a motorcycle safety course have the option of whether or not to use a helmet. Riders must, however, carry at least \$20,000 in first party medical benefits. Riders under the age of 21 are still required to use government approved helmets.

KAs involving motorcycles ¹¹					
Year	Actual		Year	Goal	Actual
2008	1,030		2012	954	
2009	865		2013	601	
2010	778		2014	585	
2011	695		2015	569	

Pedestrians

Pedestrians are about one-eighth of traffic fatalities each year. There are relatively few effective behavioral interventions for improving pedestrian safety. Some relate to helping drivers avoid pedestrians, while others hope to keep pedestrians out of harms way. An issue for pedestrian safety education is the difference between those hit and those killed. Due to relatively high exposure, those most likely to be hit are young non-drivers during the day. Due to increased body frailty and alcohol and drug use, older pedestrians at night are more likely to be hit and killed.

KAs to pedestrians ¹²					
Year	Actual		Year	Goal	Actual
2008	577		2012	491	
2009	552		2013	508	
2010	534		2014	495	
2011	554		2015	481	

¹¹ Motorcycle involved crashes are coded from the UD-10 Michigan Crash Report as crashes where at least one motorcycle was present; other users could have been another motorcyclist, passenger vehicle, truck, van, pedestrian or a bicyclist.

¹² Pedestrians are coded from the UD-10 Michigan Crash Report as crashes where at least one pedestrian was present; the pedestrian could also be a driver who exited a vehicle, motorcycle, bicycle, etc., a person on horseback or in a horse drawn buggy or a person who was in a wheelchair.

Men

Most of the risky behaviors that can result in a fatal or serious injury are more common in men. Men buckle up less; drink and drive more, drive faster, and drive motorcycles more frequently. These behaviors are even more prevalent in *young* men.

Federal surveys of travel trips estimate that men do about 61 percent of the nation's driving, so it is expected men are in more crashes. Traffic fatalities are consistently two-thirds or more male. Women, exposed to the same traffic variables, are still seeing the number of serious and fatal injuries fall faster than that of men.

KAs to males ¹³					
Year	Actual		Year	Goal	Actual
2008	4,485		2012	3,936	
2009	4,209		2013	3,211	
2010	4,005		2014	3,027	
2011	3,370		2015	2,854	

Young Drivers

Younger drivers crash more often. Superior reflexes and more practice using cell phones do not overcome inexperience and a tendency for greater risk taking behavior. Crash survivability is better in youth, because young bodies are not as vulnerable to damage as older vehicle passengers, but poor judgment and making driver errors of greater severity can offset this. Of those killed in crashes with young drivers, about one-third are the drivers themselves, one-third are passengers with a young driver, and one-third are other drivers, passengers, and pedestrians.

Drivers under age eighteen participate in Graduated Driver Licensing (GDL), which allows gradual exposure to greater driving demands under structure and supervision. Crash involvement per driver then peaks at age eighteen, with no supervision, more exposure, and still incomplete driving skills. Persons under age twenty-one may not legally drink, which is not to say that all abstain. Alcohol-involved crashes then peak at age twenty-one, with increased opportunity for access to alcohol. As responsibilities increase and brain development subsides in the mid-twenties, crash involvement drops precipitously. By age twenty-five, the most dangerous years are past, and after age thirty-five risk of crash-injury is average.

KAs involving drivers ages 16 to 20 ¹⁴					
Year	Actual		Year	Goal	Actual
2008	1,691		2012	1,495	
2009	1,639		2013	1,244	
2010	1,524		2014	1,189	
2011	1,480		2015	1,137	

¹³ Males are coded from the UD-10 Michigan Crash Report as any male killed or incapacitated in a crash; he could be a driver, passenger, pedestrian, or bicyclist.

¹⁴ Young drivers ages 16-20 and 21-24 are coded from the UD-10 Michigan Crash Report as any crash involving at least one driver age 16-20 ; the driver of the other car may also fall in the age category or another age category.

KAs involving drivers ages 21 to 24					
Year	Actual		Year	Goal	Actual
2008	1,050		2012	982	
2009	973		2013	853	
2010	991		2014	810	
2011	978		2015	769	

Afternoon Rush Hour

High exposure leads to high crash numbers. At the end of the work and school-day, there are more cars on the road, with more crashes and fatalities. It is not disproportionately negative, but it is Michigan's time with the most fatalities. The morning rush hour does not show as much of a peak. Late-day drivers are more likely to be tired and less likely to be caffeinated. This becomes worse over the week as sleep deprivation builds up, with Friday being the worst at this time slot. Drivers have shorter tempers and attention spans drift after a long day. Dinnertime and happy hour are the peak times for alcohol-involvement for drivers over twenty years of age. Restraint use is also lower in the evening than the morning.

KAs from 3pm to 6pm					
Year	Actual		Year	Goal	Actual
2008	1,537		2012	1,368	
2009	1,552		2013	1,224	
2010	1,363		2014	1,178	
2011	1,405		2015	1,133	

Nighttime Driving

Traffic is light late at night, but the crashes are disproportionately severe and likely to involve alcohol. Midnight to 3:00 am includes bar closing time, and it is the peak time for alcohol impaired driving. Alcohol behaves synergistically with drowsiness, making late-night drivers even less competent. Alcohol-involvement starts heading up around 9:00 pm, but does not start spiking until midnight. Alcohol-involved crashes peak in the 2:00 am to 3:00 am hour, when bars close. After 4:00 am, traffic is too light to have large numbers of crashes.

KAs from midnight to 3am					
Year	Actual		Year	Goal	Actual
2008	740		2012	654	
2009	698		2013	517	
2010	677		2014	478	
2011	618		2015	442	

Weekend Driving

Serious crashes spike almost every weekend. Increased alcohol use, nighttime driving, visiting unfamiliar areas, traffic congestion in and around popular venues, and decreased attention all contribute to a higher rate of serious crashes on Friday and Saturday evenings.

Noon Friday to noon Sunday was noted as the crash peak which includes both Friday after-work and Saturday night. The Saturday night crash peak actually takes place on Sunday morning (after midnight), while the weekend peak starts early Friday afternoon as people leave work or school.

KAs from noon Friday to noon Sunday					
Year	Actual		Year	Goal	Actual
2008	2,594		2012	2,338	
2009	2,606		2013	1,900	
2010	2,261		2014	1,794	
2011	2,230		2015	1,693	

Summer Travel

While many would expect more crashes in inclement weather, the summer months see more travel, travel to unfamiliar destinations, and all the distractions associated with such travel. August is Michigan's worst month for fatalities, overall and alcohol-involved, with July to September as the worst three-month period. Serious crashes are more common from June to November and significantly less common from January to March.

KAs from July to September					
Year	Actual		Year	Goal	Actual
2008	2,228		2012	1,979	
2009	2,158		2013	1,773	
2010	2,124		2014	1,702	
2011	2,004		2015	1,633	

4. TRAFFIC SAFETY PARTNER INPUT

Input from traffic safety partners is critical to the development of the HSP and to the projects selected. OHSP constantly solicits feedback on how programs are working, which directions to pursue, and what new programs look promising.

The importance of external input cannot be overstated. Meetings and conferences, progress reports from grantees, and discussions in person, by telephone, and over e-mail all provide valuable information that works its way into OHSP programs. Simple conversations have led to significant improvements in programs that save lives, reduce costs, or increase efficiencies.

Governor's Traffic Safety Advisory Commission

Michigan is the only state in the nation to have had a state-level traffic safety commission in existence since the early 1940's. In 2002, the State Safety Commission, and the Safety Management System (SMS) process was merged to create the Governor's Traffic Safety Advisory Commission (GTSAC). The membership of the Commission was also expanded to include representatives from local units of government.

The GTSAC consists of the Governor (or a designee); the Directors (or designees) of the Departments of Community Health, Education, State, State Police, and Transportation, the Office of Highway Safety Planning, and the Office of Services to the Aging; and three local representatives from the county, city, and township levels. The GTSAC meets on a quarterly basis. Agenda development is a process open to all traffic safety advocates within the state and is available through OHSP's Web site (<http://www.michigan.gov/ohsp-gtsac>). Communication between GTSAC members and among traffic safety advocates throughout Michigan is also accomplished through a Web site and LISTSERV® that has more than 200 members. LISTSERV® members receive GTSAC and traffic safety news and information.

Strategic Highway Safety Plan

In 2008, the GTSAC approved a statewide Strategic Highway Safety Plan (SHSP), identifying priority areas for all GTSAC member agencies to address and to set an agenda for traffic safety efforts in the state. Each priority area has an associated Action Team to facilitate open communication, coordinate individual agency efforts, and keep progress moving forward. OHSP staff participates in these Action Teams and incorporates information and recommendations into the Michigan Highway Safety Plan. Action plans are updated frequently to reflect emerging issues or completed action items. The SHSP will be updated in the fall of 2012 for the period of 2012 through 2015.

Program Area Network Meetings

In addition to the GTSAC Action Teams, OHSP program staff serve as experts in specific traffic safety emphasis areas and work with a network of partners across the state and nation that help generate ideas, highlight problems, and identify appropriate strategies to resolve them. This network of partners gives OHSP program staff the ability to determine where resources are available to leverage, which partners have the necessary enthusiasm or unique expertise, and whether model programs are working or not (and why) in Michigan communities.

Traffic Safety Summit

The annual Michigan Traffic Safety Summit is a two and one half day conference for traffic safety practitioners and is the state's central event for traffic safety information-sharing and networking. It allows OHSP and other partners to promote promising ideas, solicit input and feedback from partners, and showcase programs from the local, state, and national levels.

Additional Planning Resources

OHSP consults a wide variety of resources for problem identification, priority setting, program selection, and grant awards. These ensure that Michigan is following best practices and using the most effective means of reducing deaths and injuries. Some of these resources include:

- The Michigan Department of State Police Strategic Plan and other state and local plans.
- National plans, priorities, and programs, including those from the United States Department of Transportation (USDOT), Federal Highway Administration (FHWA), and the National Highway Traffic Safety Administration (NHTSA).
- The NHTSA publication "Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices."

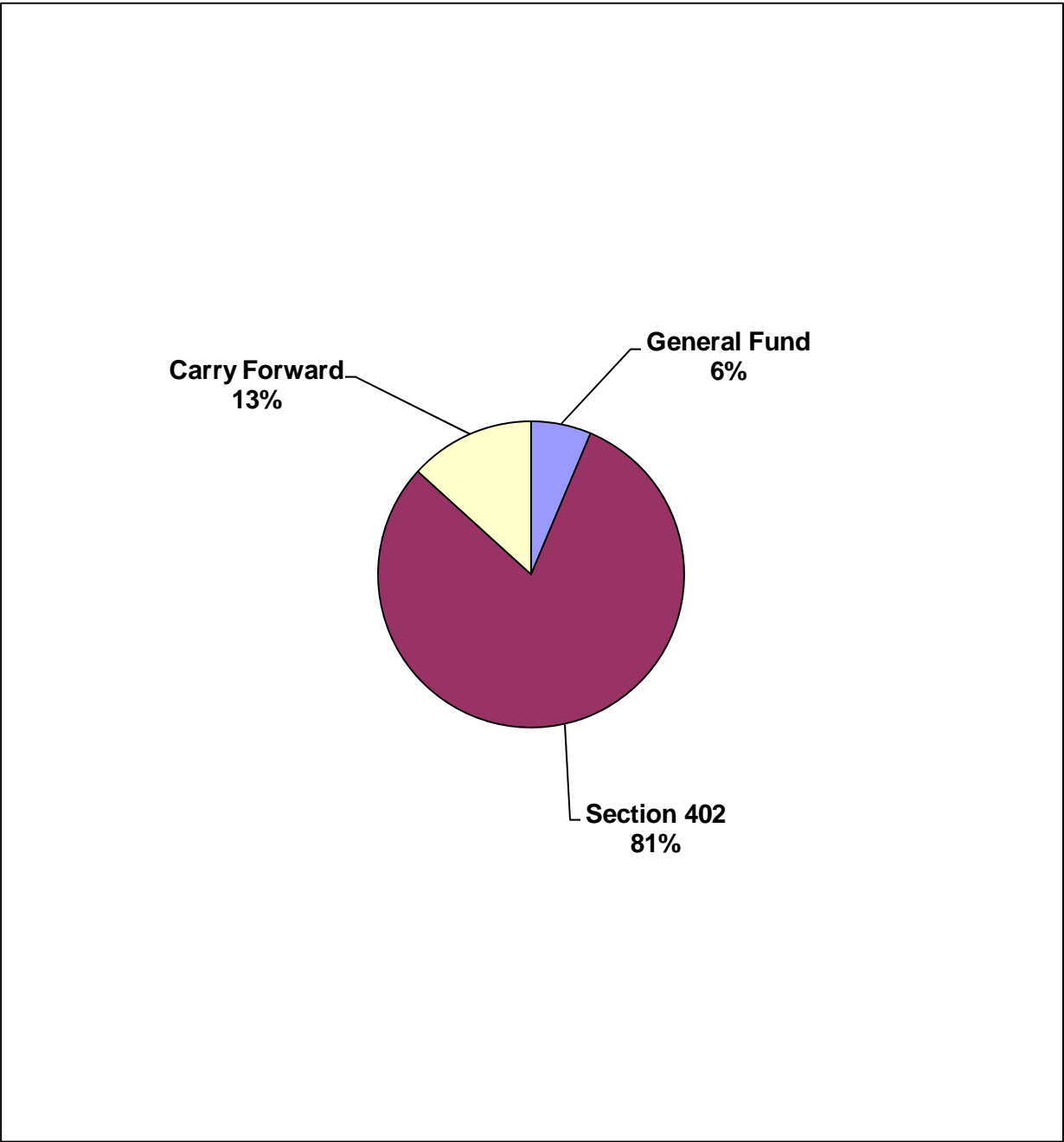
- NCHRP Report 622, “Effectiveness of Behavioral Highway Safety Countermeasures”
- American Association of State Highway and Transportation Officials (AASHTO), Transportation Research Board (TRB), and Association of Transportation Safety Information Professionals (ATSIP) publications and conferences.
- Academic publications and research reports.
- Staff participation on various committees and associations, including: GTSAC Action Teams, The Michigan Model for Comprehensive School Health Education Steering Committee, Michigan Section of the Institute of Transportation Engineers, Michigan Association of Chiefs of Police, Michigan Sheriffs’ Association, Michigan Pupil Transportation Advisory Committee, Prevention Network, Michigan Coalition to Reduce Underage Drinking, the Michigan Deer Crash Coalition, the Association of Traffic Safety Information Professionals, Michigan Transportation Research Board, local Traffic Safety Committees, and state-level associations.
- Feedback from grantees during the implementation, monitoring, and evaluation of traffic safety projects.
- Input provided by the general public.
- OHSP staff attendance at state, regional, and national conferences and seminars to network and learn about developing tools, trends, and issues.

4. BUDGET DEVELOPMENT

An estimated HSP budget is developed as staff begins drafting Grant Development Plans. Budgeting considers new and existing funding sources, allocated between program areas based on problem identification, promising projects, needs for program continuity, and effectiveness of strategies in prior years. The HSP management team considers the merits of funding requests along with the level of program funding from previous years, funding of other related programs, special funding sources, and office-wide long-range goals before approving budgets for each program area. Program managers share responsibility for reviewing strategies to determine which should be fully funded, which can proceed with amendments, and which are not feasible. This process can shift the initial budget allocation between program areas to accommodate essential and/or promising projects that warrant special support.

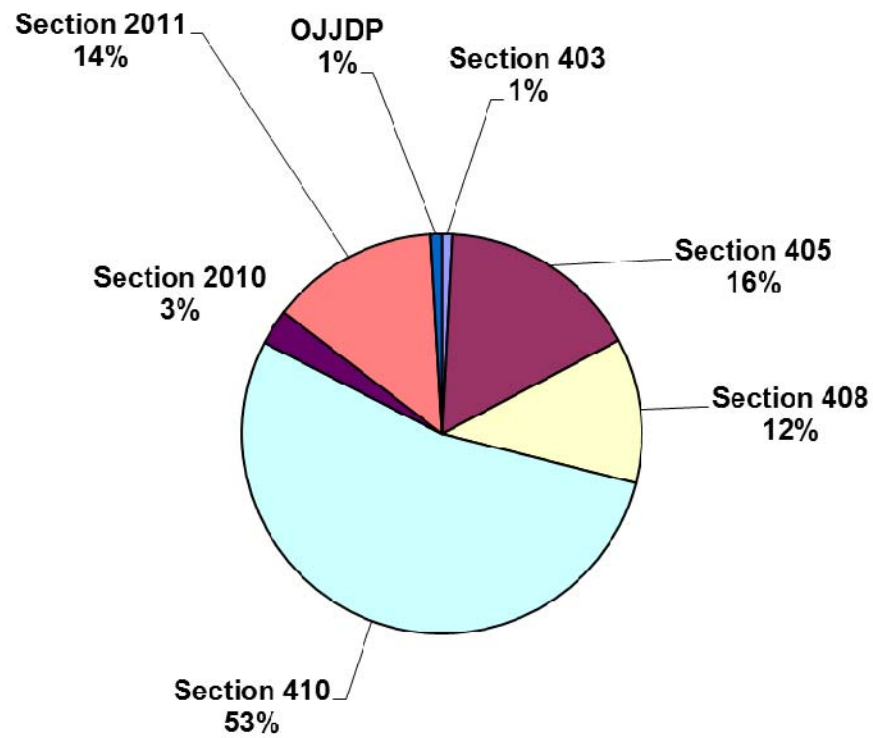
Exhibits 3, 4, 5, and 6 illustrate the projected sources of funding, program level budgets, and the distribution of funding by type.

EXHIBIT 3: Unrestricted Program Funding Sources, FY 2013



State General Fund	Section 402	Carry Forward
\$575,000	\$7,275,000	\$1,200,000

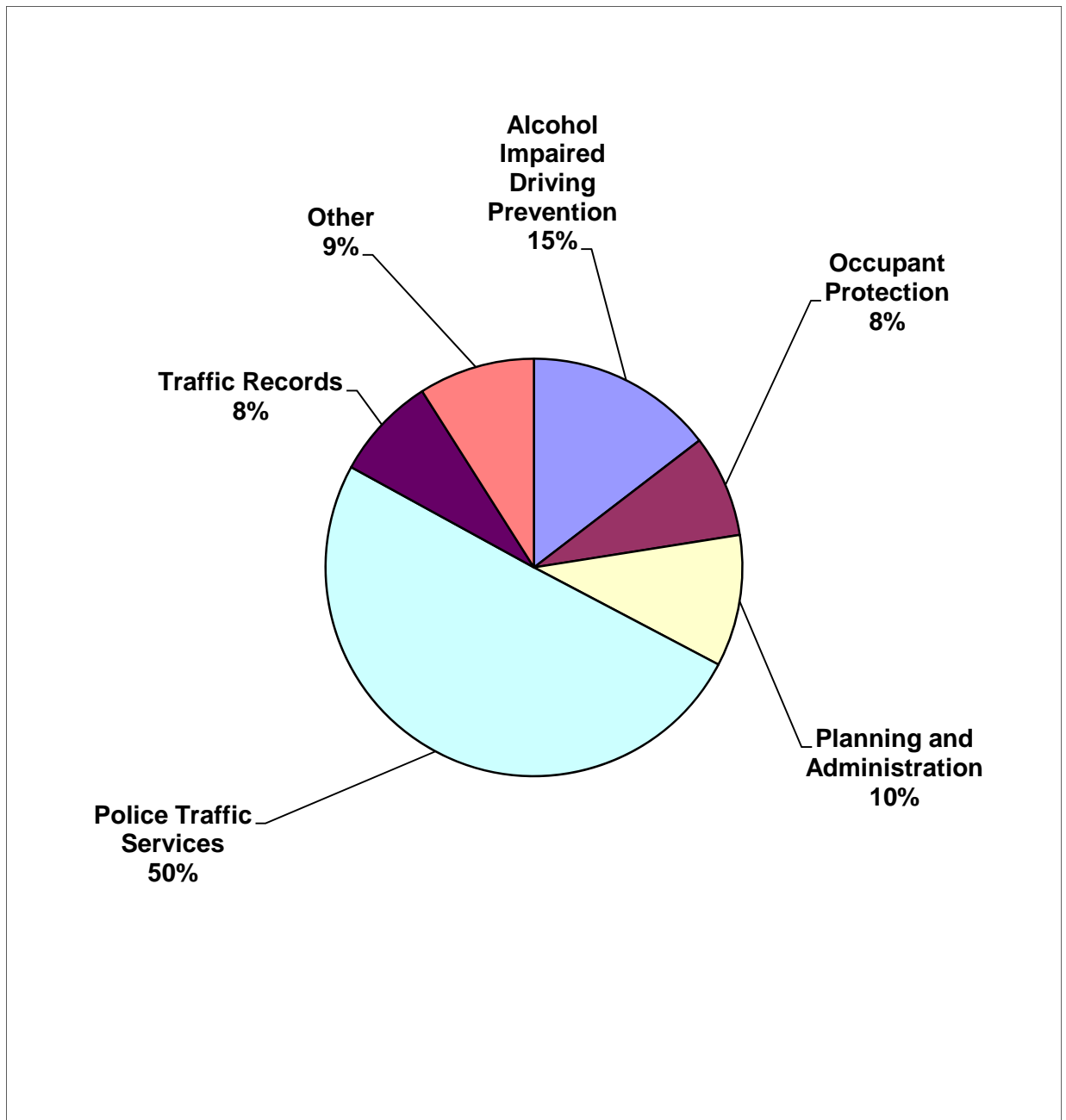
EXHIBIT 4: Restricted Program Funding Sources, FY 2013



Section 403	Section 405	Section 408	Section 410
\$49,000	\$1,000,000	\$712,000	\$3,260,000

Section 2010	Section 2011	OJJDP
\$175,000	\$831,000	\$55,000

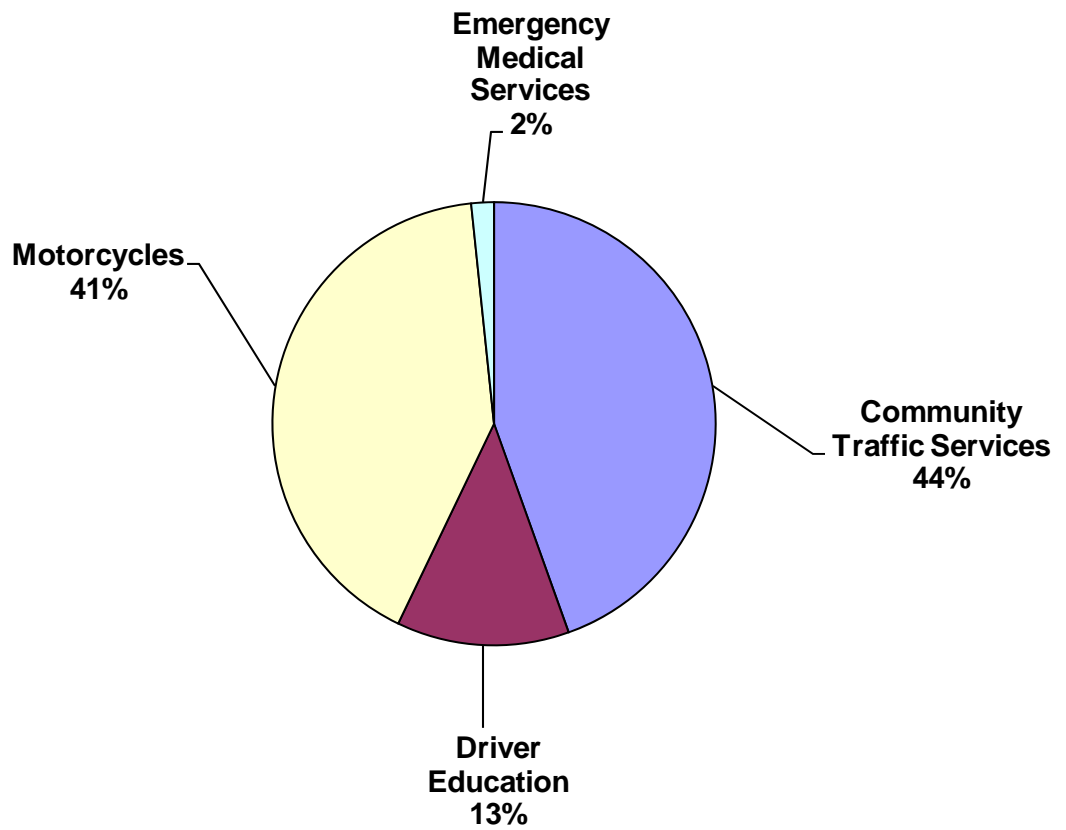
EXHIBIT 5: Program Budgets, FY 2013



Alcohol	Occupant Protection	Planning/ Administration	Police Traffic Services
\$1,865,000	\$1,011,000	\$1,303,000	\$6,425,000

Traffic Records	Other
\$1,023,000	\$1,152,000

EXHIBIT 6: "Other" Program Budgets, FY 2013



Motorcycles	Community Traffic Services	Driver Education	Emergency Medical Services
\$475,000	\$513,000	\$145,000	\$19,000

5. PROJECT SELECTION

Projects are selected based on the potential for impacting traffic safety problems and moving Michigan towards the statewide traffic safety goals. Determination of which projects to pursue precedes grant solicitation in Michigan, flowing from problem identification. Some states have open solicitations in which potential grantees submit the projects which may be a point of interest for pursuit, and the state highway safety office chooses among the projects. In Michigan, the problems, target areas, and likely countermeasures are selected in advance, usually in consultation with potential grantees, but not dependent on volunteers or proposals from the field. OHSP actively seeks out grantees in problem areas with particular expertise.

When recommending programs, OHSP program staff considers:

- the population to be reached;
- the extent of the problem in the target population;
- where and when implementation must take place;
- the expected effectiveness of the proposed project;
- which partners are available and competent to implement projects;
- the most efficient and effective means of implementing programs;
- available funding sources.

In some instances, programs such as training, public information, and mobilization campaigns are most effectively coordinated at the state level. OHSP oversees these programs. Some projects must take place at the local level, where the community experiencing the problem will have unique competence in addressing its causes.

Grant Development Plans

Following dialogue with OHSP leadership about office priorities, staff prepares the grant development plans (GDPs). The GDP assists in ensuring sufficient preparations are made before program implementation, and it also serves as documentation for the program area. OHSP develops GDPs as a team effort where programs cross network areas, and serve as valuable internal planning tools. Each GDP contains:

- specific information about the strategy the project will pursue;
- potential grantees;
- funding levels and sources;
- project schedules.

Exhibit 6 is an example of the GDP form.

EXHIBIT 6: FY2013 Grant Development Form

Grant Development Plan

due MM/DD/YYYY

Strategy Name**Background/Problem Statement****Desired outcomes/results****Impact Statement** *(What will happen if we do not have this program?)***Funding Recommendation****HSP Goal/Objective targeted****Information sources and partners consulted**

How will this strategy be achieved? Why was this strategy selected? How will the program be evaluated for effectiveness? (Use more detail if new or involves personnel, equipment, or communications campaigns)

Year of funding?		Will the strategy continue next year?	Y N
Expected grantee		Estimated budget	
October 1 start-up required?	Y N	Split-funded from FY2010?	Y N
Seed-funding grant needing post-OHSP continuation plan?	Y N	If so, does it have one?	
Funds for Program Mgt. Section in-house grant?	Y N	Funds for Comm. Section in-house grant?	Y N
For the benefit of locals?	Y N	PI&E materials being made?	Y N
Strategic Highway Safety Plan action item?			Y N
Contractual costs?	Y N	Personnel costs?	Y N
Indirect costs?	Y N	If so, indirect rate	
Program income?	Y N	If so, how much?	
Any equipment?	Y N	If so, matching funds	
Equipment over \$5,000 per item?	Y N	If so, matching funds	
Out-of-state travel?	Y N	If so, purpose of travel?	

Objectives **(Specific, Measurable, Attainable, Relevant, Time-bound)**

(3 or 4: what is the purpose of this grant?)

Additional notes

Funding Source	Amount	Funding Source	Amount
	\$		\$
	\$		\$

Author

Date

Approval

Date

Following development of the strategies and GDP's, OHSP program area staff conducts Program Area Presentations for OHSP leadership and staff. These presentations begin with an overview of the traffic crash data, followed by an overview of the GDP's selected to address the identified problems. This presents an opportunity for back-and-forth questioning and discussion, bringing out detail and emphasis that might be lost in the pages of text. It also allows everyone in the office to become better aware of plans and partnership opportunities in other program areas.

Management Team Review

OHSP's Management Team reviews the material presented for final selection of the programs that will receive funding. This recapitulates the list of factors staff consider in the programs and recommendations, providing an office-wide rather than program area-specific perspective. In this way, greater attention can be placed on budget limitations and on balancing demands and opportunities in various program areas.

Grant development begins with final approval.

6. PERFORMANCE MEASURES

OHSP tracks many variables to monitor progress of crash problems and to set program goals. Crash data is key, as discussed in Section 2. Each program also has its own goals, established in dialogue between program staff and grantees. Monitoring and evaluation is an ongoing process.

Other publications available for performance measurement include the Annual Evaluation Report (AER) and Michigan Traffic Crash Facts.

NHTSA and the Governor's Highway Safety Association (GHSA) have agreed on a minimum set of performance measures to be used by state and federal agencies in the development and implementation of behavioral highway safety plans and programs. The measures follow. Nearly all fatality numbers are from the Fatal Analysis Reporting System (FARS), with the rest coming from state databases and surveys. Goals are copied from Section 2 or set by the same procedure. (Goals may be at or above earlier years' actual crash numbers during especially good years. Goals are set from the normalized trend values to reduce the effects of annual variation. That is, if last year was unusually good for a program area, next year's goal should realistically assume some regression to the mean.)

2011 FARS data was not available before the FY 2013 Performance Plan was due. The relevant boxes have been left blank for later completion.

**Traffic Safety Performance Measures for States and Federal Agencies
Crash Data and Goals**

	Actual					Goal			
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Traffic fatalities	1,087	980	871	937	889	860	792	763	735
Serious ("A") Injuries in traffic crashes	7,485	6,725	6,511	5,980	5,706	5,924	4,902	4,629	4,371
Fatalities per 100 million VMT	1.04%	0.97%	0.91%	1.0%	.9%	.82%	.91%	.89%	.87%
<i>Rural fatalities per 100 million VMT</i>	2.00	1.84	1.27	1.34	Pending	Pending	Pending	Pending	Pending
<i>Urban fatalities per 100 million VMT</i>	0.61	0.56	.72	.78	Pending	Pending	Pending	Pending	Pending
Unrestrained passenger vehicle occupant fatalities, all seat positions	278	276	228	236	215	199	183	178	174
Fatalities in crashes involving a driver or motorcycle operator with a BAC of .08+	210	204	190	173	185	256	204	194	184
Speeding-related fatalities	242	232	205	231	238	189	194	192	190
Motorcyclist fatalities	120	125	103	125	109	128	106	105	104
Unhelmeted motorcyclist fatalities	8	8	6	4	5	14	4	3	2
Drivers age 20 or younger in fatal crashes	235	177	158	164	160	163	152	144	137
Pedestrian fatalities	134	114	121	131	140	108	137	135	134
Safety belt use (daytime, observed)	93.7%	97.2%	97.9%	95.2%	94.5%	97.0%	98.0%	98.0%	98.0%
Safety belt citations issued during grant-funded enforcement activities (FY)	25,310	23,924	21,510	11,880	12,662	No Goals	No Goals	No Goals	No Goals
Impaired driving arrests made during grant-funded enforcement activities (FY)	2,200	2,685	2,381	1,638	1,379	No Goals	No Goals	No Goals	No Goals
Speeding citations issued during grant-funded enforcement activities (FY)	6,642	12,711	10,341	5,296	4,246	No Goals	No Goals	No Goals	No Goals

- FARS data used for fatalities. Other data is from state database.
- Goals are not required for VMT death rate components.
- 2012 goals are published only to reflect the performance plan set for 2007-2012; new goals for 2013-2015 are based on the latest available data from 2007-2011.

**Traffic Safety Performance Measures for States and Federal Agencies
GHSA/NHTSA Recommended Standardized Goal Statements
Michigan Highway Safety Planning Goals 2013-2015**

Performance Measure Identifier	Goal Statement*
C-1	To decrease traffic fatalities 11 percent from the normalized 2013 value of 792 to 735 by December 31, 2015.
C-2	To decrease serious ("A") traffic injuries 17 percent from the normalized 2013 value of 4,902 to 4,371 by December 31, 2015.
C-3	To decrease fatalities/VMT 8 percent from the normalized 2013 value of .91 percent to .87 percent by December 31, 2015.
C-4	To decrease unrestrained passenger vehicle occupant fatalities in all seating positions 7 percent from the normalized 2013 value of 183 to 174 by December 31, 2015.
C-5	To decrease alcohol impaired driving fatalities in which a driver has at least a .08 BAC 15 percent from the normalized 2013 value of 204 to 184 by December 31, 2015.
C-6	To reduce speeding-related fatalities 3 percent from the normalized 2013 value of 194 to 190 by December 31, 2015.
C-7	To reduce motorcyclist fatalities 3 percent at the normalized 2013 value of 106 to 104 by December 31, 2015.
C-8	To reduce un-helmeted motorcyclist fatalities 3 percent at the normalized 2013 value of 4 to 2 by December 31, 2015.
C-9	To reduce drivers age 20 or younger involved in fatal crashes 3 percent at normalized 2013 value of 152 to 137 by December 31, 2015.
C-10	To reduce pedestrian fatalities 3 percent from the normalized 2013 value of 137 to 134 by December 31, 2015.
B-1	To increase statewide observed seat belt use of front seat outboard occupants in passenger vehicles to 98 percent through December 31, 2015.

The goals were established using a trend line-based estimate (based on 2007-2011 data) of 2012 counts. A specific percent reduction was applied to each crash category based on the identified trends.

Telephone Survey Results by Percentages

May 06	June 06	Aug 06	Sept 06	Aug 07	Sept 07	May 08	June 08	July 08	Aug 08	Sept 08	Mar 09	May 09	June 09	July 09	Aug 09	Sept 09	May 10	June 10	Aug 10	May 11	June 11	July 11	Aug 11
"In the past 30 days, have you driven a motor vehicle, let's say, within 2 hours after drinking alcoholic beverages?": "Yes"																							
12	9	11	9	6	11	6	8	10	9	11	8	9	8	9	8	9	7	2	11	9	6	8	10
"In the past 30 days, have you seen or heard of any special effort by police to arrest drivers in your community for drunk driving?": "Yes"																							
27	28	27	41	23	35	19	20	22	16	29	14	19	17	25	20	24	23	27	31	25	16	30	32
"If you drove after having too much to drink and be able to drive safely, how likely are you to be stopped by a police officer?": "Almost certain", "Very likely," or "Somewhat likely"																							
66	71	62	63	58	51	60	65	65	73	73	71	70	70	64	70	75	75	65	71	64	62	61	59
"When driving this vehicle, how often do you wear your safety belt?" : "All the time" & "When was the last time you did NOT wear your safety belt while driving?": "I always buckle my seat belt" or "More than one year ago" (always buckles up)																							
68	71	67	71	79	73	80	67	79	74	80	80	75	83	80	86	87	92	94	94	94	97	96	94
"When driving this vehicle, how often do you wear your safety belt?": "Most of the time" or "All the time" (almost always buckles up)																							
97	99	98	97	98	97	98	97	99	97	98	98	99	99	99	98	98	95	94	96	94	97	96	94
"In the past 30 days, have you seen or heard of any special effort by police to ticket drivers in your community for safety belt violations?": "Yes"																							
30	56	44	42	40	40	16	57	44	36	36	18	16	39	32	25	25	30	31	31	12	38	38	31
"Assume for a moment that you do not use your safety belt AT ALL while driving over the next six months. What are the chances you will receive a ticket for NOT wearing a safety belt?": "Very" or "Somewhat likely"																							
72	75	64	66	64	61	59	69	72	69	71	66	64	75	66	65	74	31	73	51	75	74	60	66
"When you drive on a local road that has a speed limit of 35 mph, how often would you say you drive faster than 40 miles per hour?": "Most of the time" or "half the time"																							
						10					8	13	7										
"When you drive on a freeway with a speed limit of 70 mph, how often do you drive faster than 75 miles per hour?" : "Most of the time" or "half the time"																							
						14					18	21	20										
"If you drove 10 miles per hour over the speed limit on a freeway, would you say your chances of getting a ticket would be very likely, somewhat likely, somewhat unlikely or very unlikely?": "very likely, somewhat likely"																							
						70					67	86	51										
"In the past 60 days, have you read, seen, or heard anything about speed enforcement by the police?": "Yes"																							
Michigan Office of Highway Safety Planning						36					30	28	27										

8/30/2012

Surveys were of 400 Michigan drivers. The four Traffic Safety Performance Measures survey questions on speed were not asked before being added to a 500-driver survey in 2009. Note that the safety belt use question appears twice. The first line is “always,” the second is “usually.” “Always” is double-filtered: drivers were first asked how often they wear their belts, and if they report “always,” they were asked when they last failed to wear it; if that was any time in the past year; they were counted as “usually” rather than “always.”